ORDER NO. ARD-7706051C

Service Manual

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SM-RS630
SERVICE MANUAL

Cassette Tape Deck

RS-630TUS-D

(Silver Face)
(Black Face)

Front Loading High Fidelity Cassette Deck
with Timer Stand-by Mechanism

RS-630U MECHANISM SERIES

Specifications (Catalog specifications for sales)

Power requirement:	AC; 220V, 50Hz Power consumption; 10W
Motor:	1-electronic speed control motor
Track system:	4-track, 2-channel stereo recording and playback
Tape speed:	4.8cm/s
Wow and flutter:	0.09% (WRMS), ±0.20% (DIN)
Frequency response:	CrO_2 tape; 20~16,000Hz 30~14,000Hz (DIN) Normal tape; 20~14,000Hz 30~13,000Hz (DIN)
Signal-to-noise ratio:	Dolby NR in; 60dB (above 5kHz) Dolby NR out; 50dB (signal level=250nWb/m)
Fast forward and rewind time:	Approx. 90 seconds with C-60 cassette tape

Input:	MIC; sensitivity 0.25mV/applicable microphone impedance 600Ω~20KΩ LINE; sensitivity 60mV/input impedance 100KΩ
Output:	LINE; output level 0.42V/load impedance 50KΩ over HEADPHONE; output level 60mV/8Ω
Rec/pb connection:	5P DIN type
Head:	2-head system 1-HPF head for record/playback 1-Ferrite head for erasing
Dimensions:	41.0cm(W)×14.2cm(H)×32.1cm(D)
Weight:	7kg

Specifications are subject to change without notice.

National Technics

Matsushita Electric Trading Co., Ltd.
P.O. Box 288, Central Osaka Japan

LOCATION OF CONTROLS AND COMPONENTS

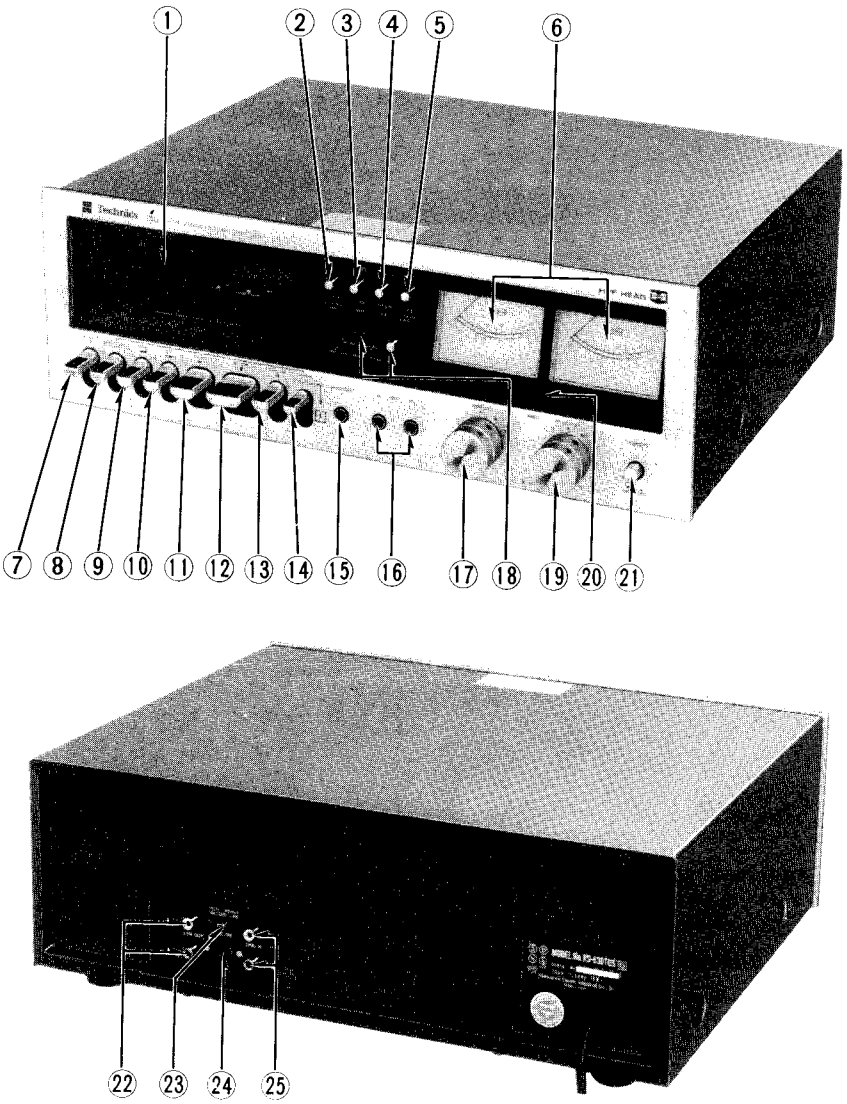


Fig. 1

① Cassette compartment door
② Dolby noise-reduction switch
③ Bias selector
④ Equalization selector
⑤ Peak-signal-check switch
⑥ Peak level/VU meters
⑦ Eject button
⑧ Record button
⑨ Rewind button
⑩ Fast forward button
⑪ Playback button
⑫ Stop button
⑬ Pause button
⑭ Timer stand-by button
⑮ Headphones jack
⑯ Microphone jacks
⑰ Input level controls
⑱ Tape counter and reset button
⑲ Output level controls
⑳ Recording indication lamp
㉑ Power switch
㉒ Line output jacks
㉓ Input selector
㉔ Record/playback jack
㉕ Line input jacks

※ Dolby is the trade mark of Dolby Laboratories Inc.

DISASSEMBLY INSTRUCTIONS

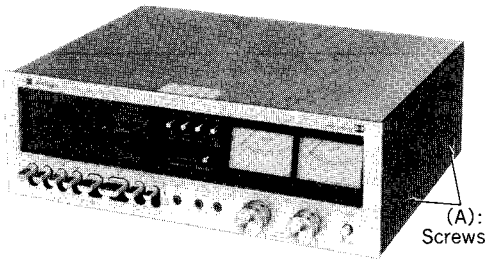


Fig. 2

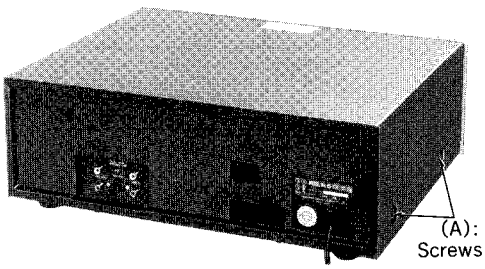


Fig. 3

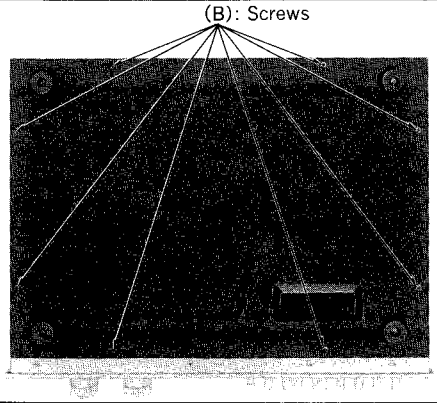


Fig. 4

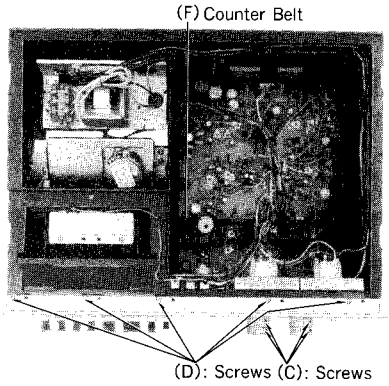


Fig. 5

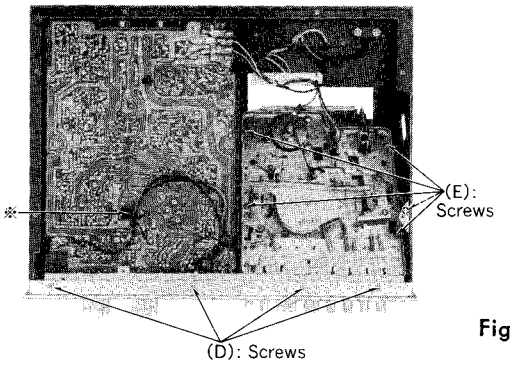


Fig. 6

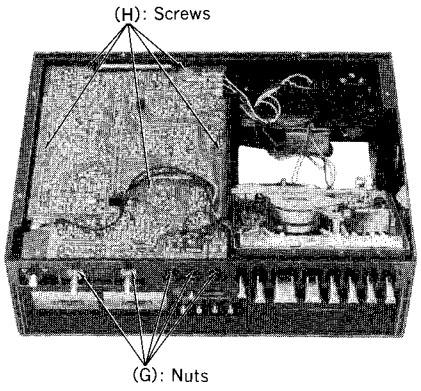


Fig. 7

Procedure	To remove ——.	Remove ——.	Pcs.	Shown in fig. ——.
1	Case cover	(A)	4	2, 3
1	Bottom cover	(B)	8	4
3	Front panel	(C), (D)	4, 9	5, 6
4	Mechanism	(E), (F)	5, 1	5, 6
4	Main circuit board	(G), (H),	5, 5	7

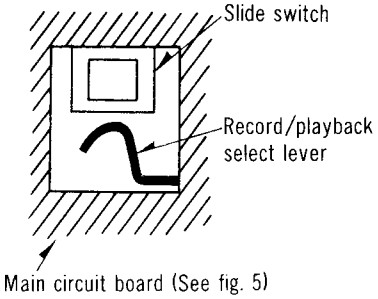


Fig. 8

※ When the main circuit board is installed, be sure that the slide switch and the record/playback select lever are placed in proper position. (See fig. 8)

ADJUSTMENTS

Before measuring and adjusting "Overall frequency response", "Overall distortion" and "Overall S/N ratio", confirm that the characteristics of 5 items below are within standard which have much relation to or influence on electrical performances above.

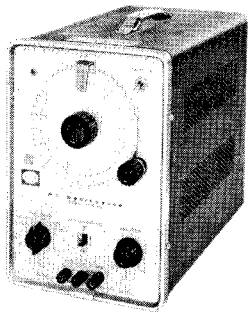
1. Head azimuth adjustment. 2. Bias current. 3. Playback gain. 4. Overall gain.
5. Playback frequency response.

I. TEST INSTRUMENTS

1. Prepare test instruments which are equivalent in accuracy to those shown below.
2. The test instruments should be inspected and corrected by specialists once every 6 months, because a long period of use without maintenance may increase errors in indication.
3. Warm-up the test instruments for 30 minutes and the set to be measured for 10 minutes before taking the measurements. If not, there may arise an error or difference between the initial value and the stabilized value measured after "aging".
4. Specifications of test instruments.

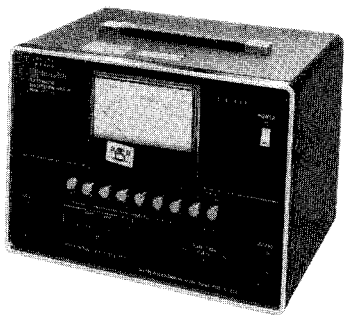
(1) Audio frequency oscillator

a. Oscillation frequency: 5 Hz ~ 500 kHz (5 ranges)
b. Frequency tolerance: ±(3% + 1 Hz)
c. Sine wave
* Output voltage: 5 Vrms ±10% (without load)
(at 25°C) 2.5 Vrms ±10% (with 600Ω load)
* Output frequency response: Within ±0.2 dB, 20 Hz ~ 20 kHz
Within ±0.5 dB, 5 Hz ~ 500 kHz
* Distortion factor: Not more than 0.05%, 200 Hz ~ 20 kHz
Not more than 0.5%, 5 Hz ~ 500 kHz
* Output impedance: 600Ω unbalanced, within ±15%
* Output attenuator: 0, 20 dB, Error: within ±0.2 dB
d. Temperature in use of set: Temperature = 0 ~ 40°C, Humidity = 90% or less



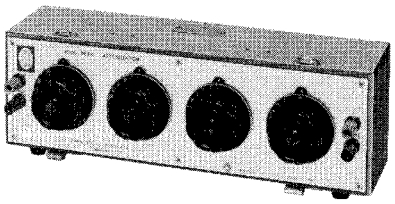
(2) Automatic-stop distortion meter (with vacuum tube voltmeter)

A. Distortion factor measurement
a. Frequency: (fundamental wave) 400 Hz, 1 kHz ±10%
b. Measurement: 0.1 ~ 100% (6 ranges)
c. Input: 50 mV ~ 50 V
d. Fundamental wave attenuation: 60 dB or more
B. Level measurement
a. Measurement: 1 mV (−60 dB) ~ 30 V (30 dB) (9 ranges)
b. Frequency response: (1 kHz basis) 20 Hz ~ 100 kHz ±0.3 dB
c. Input impedance: 1 MΩ ±10%, less than 50 pF
d. Error in indicated value: Within ±3% at 1 kHz
C. Output terminal
a. Frequency response: 10 Hz ~ 100 kHz ±1 dB
100 kHz ~ 1 MHz ±3 dB
b. Output voltage: 1 Vrms ±10% (1 kHz sine wave)



(3) Attenuator

a. Input impedance: 600Ω unbalanced
b. Maximum attenuation: 121 dB
c. Minimum attenuation: 0.1 dB



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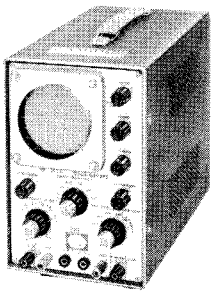
(4) Oscilloscope

a. Cathode ray tube: Effective ranges 8 × 8 cm
b. Vertical axis
   * Input sensitivity: 30 mV ~ 30 V/cm
   * Frequency band: DC ~ 2 MHz
   * Transient time: 180 ns.
   * Input impedance: 1 MΩ, 35 pF
c. Horizontal axis
   * Tuning range: 30 Hz ~ 2 MHz
   * Sweep time: 1μs ~ 100 ms/cm
   * External sweep: 1 Vp-p/cm or more



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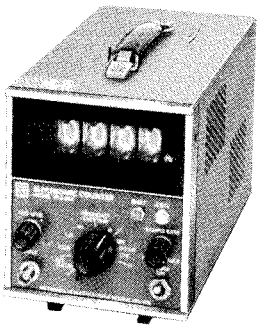
(5) Digital electronic counter

a. Number of figure: 4 (decimal system)
b. Input sensitivity: 100 mVrms
c. Input impedance: 1 MΩ, 40 pF
d. Frequency measurement range: 10 Hz ~ 100 kHz
e. Counting time: 0.1, 1, 10 s



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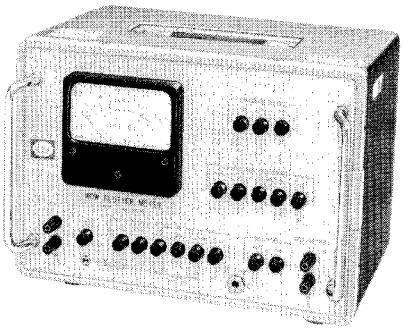
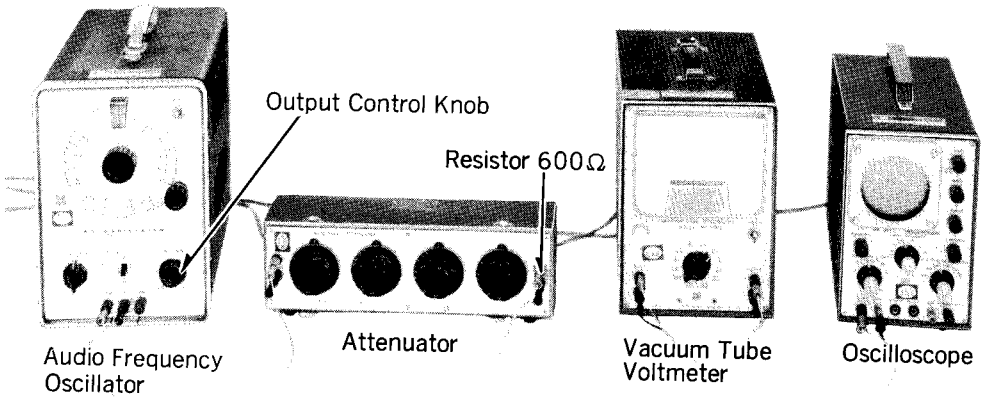
(6) Wow meter

a. Measured center frequency range: 3 kHz ±4%
b. Input level range: 30 mV ~ 3 V
c. Input impedance: About 50 KΩ unbalanced
d. Measurement: 0.01 ~ 3% (5 ranges)
e. Indicator error: Maximum error in indicated value ±5% in each range.
f. Frequency response: Conforming to weighting curve characteristics (WRMS), JIS C5551.
   Flat characteristics (RMS)
   0.5 ~ 200 Hz, within −3 dB (4 Hz basis)
g. Meter indication system: Effective value indication, conforming to JIS C5551.
h. Meter response characteristic: About 5 ~ 7 sec.
i. Oscillation frequency: 3 frequencies (3 kHz, 3 kHz ±3%)
j. Temperature range: 0 ~ 40°C



II. MEASUREMENT CONDITIONS

1. Standard measurement conditions
   * Ambient temperature: 10~30°C (50~86°F)
   * Ambient humidity: 30~90% RH
   * Power voltage accuracy: ±3%
2. Position of tape recorder
   * When measuring, place the unit under test in a horizontal position.
3. Oscillator output voltage adjustment
   * Connect the equipments as shown in the following and adjust the oscillator output control knob for 1 V (f = 1 kHz) through the attenuator while keeping the attenuator at 0 dB.
   * When supplying a signal to the tape recorder amplifier, adjust the input level using the attenuator.



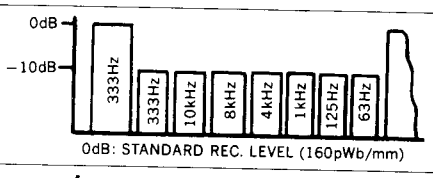
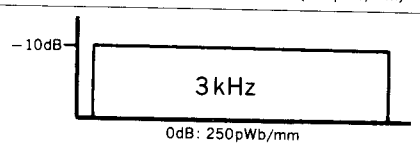
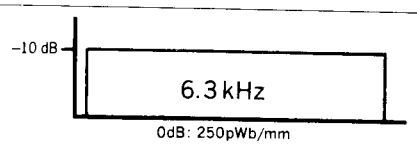
III. TEST TAPE

Test tape life

The more frequently the test tape is used, the more the tape characteristics will deteriorate (e.g. lowering of recorded level, worsening of frequency response particularly in high-frequency range, and an increase in wow due to tape elongation) until measured values become unreliable. Even in such a case when a tape is not used, but stored, for a long period of time, tape shows deterioration in performance because of self damagenetization due to storage conditions, etc.
Please refer to the tape life specification and use care not to use a tape longer than its rated life when servicing.

Frequence of use: Not more than 20 times for each tape length.
Storage period: Not more than 6 months.

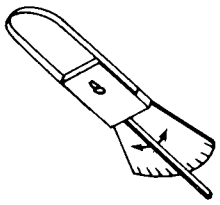
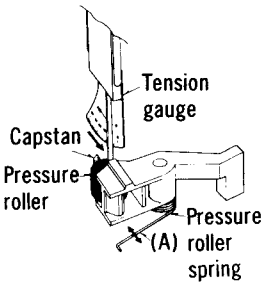
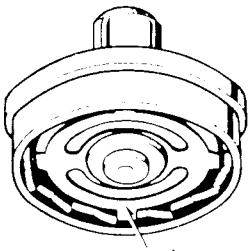
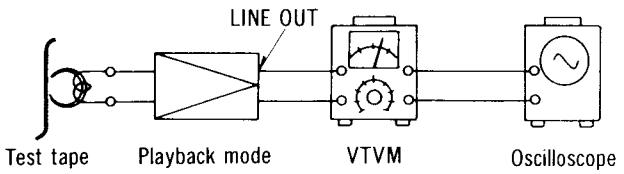
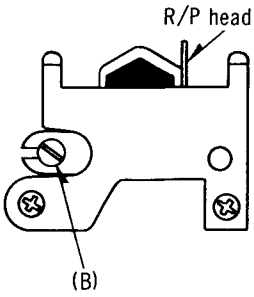
※ Test tape

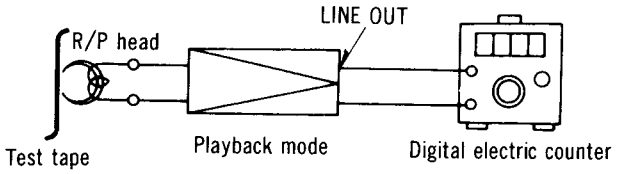
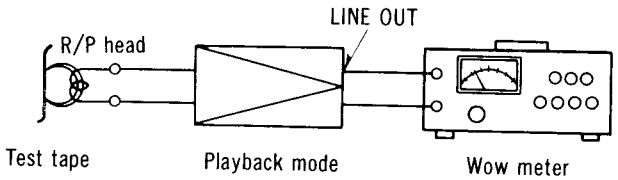
PARTS NO.	PARTS NAME	SPECIFICATIONS	REMARKS
C-FH	STANDARD REC. LEVEL & FREQ. RESPONSE TAPE		5 TIMES REPETITIVE RECORDING TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (10 MIN.)
C-WAT	WOW & TAPE SPEED TAPE		TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (45 MIN.)
C-AA	AZIMUTH TAPE		TAPE SPEED: 1-7/8 IPS. (4.8 CM/S), FULL TRACK (15 MIN.)
C-RA	REFERENCE BLANK TAPE (NORMAL)		UNRECORDED TAPE (20 MIN.)
C-RF	REFERENCE BLANK TAPE (CrO_2)		UNRECORDED TAPE (20 MIN.)

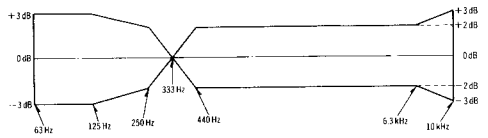
IV. MEASUREMENT & ADJUSTMENT METHOD

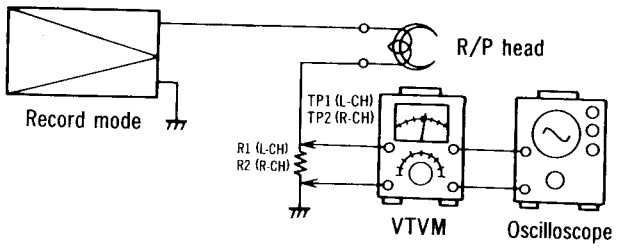
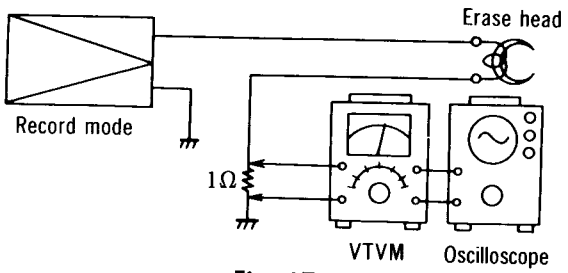
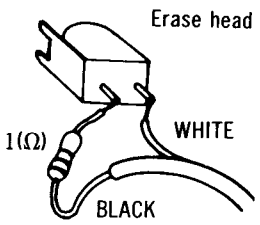
NOTE:

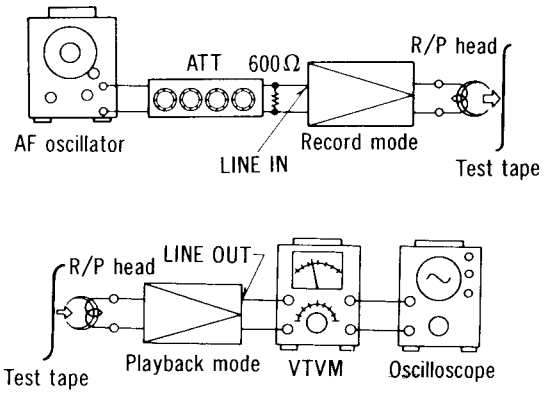
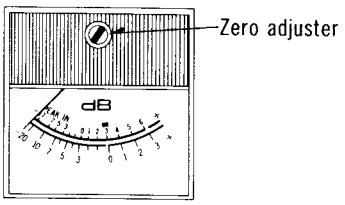
1. Make sure heads are clean.
2. Make sure capstan and pressure roller are clean.
3. Judgeable room temperature: 20±5°C (68±9°F)
4. Dolby NR switch: OUT
5. EQ. selector: 120μ
6. Bias selector: LOW
7. Peak check switch: OUT
8. Output level control: MAX.

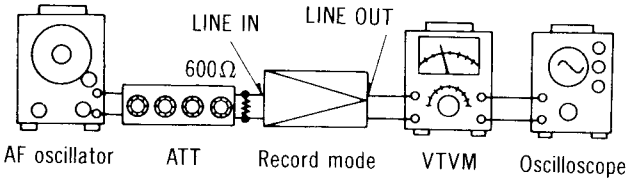
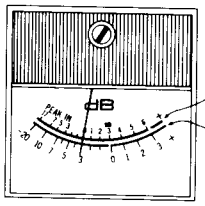
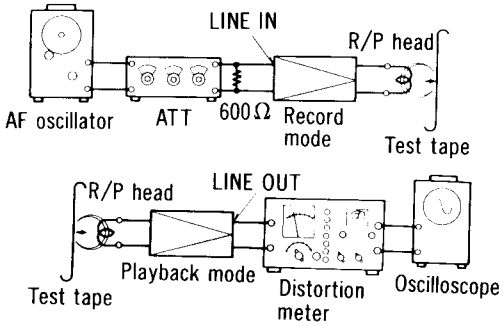
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Pressure of pressure roller Equipment: * Tension gauge (max. 500 gr) 	1. Place UNIT into playback mode. 2. Hook the tension gauge to pressure roller lever and pull it in the direction of the arrow as shown in fig. 9. 3. Measure the tension at the moment when the pressure roller moves away from the capstan. **Standard Value: 400±50 gr** **Adjustment method** Bend the part (A) of the pressure roller spring in either direction shown by the arrow until the correct pressure is attained.	* Playback mode  **Fig. 9**
Takeup tension Equipment: * Cassette torque meter (SRK-CT or RP8063)	1. Mount cassette torque meter on UNIT. 2. Place UNIT into playback mode and read takeup torque. 3. Measure several times and determine the mean value. **Standard Value: 55±15 gr-cm** If the measured value is not within standard, firstly clean the rotational parts of the mechanism with alcohol, and if it still is not within standard, make the following adjustment. **Adjustment method** Adjust by turning the plate spring attached in the takeup reel table (See fig. 10).	* Playback mode  **Fig. 10**
Head azimuth adjustment Equipment: * VTVM * Oscilloscope * Test tape (azimuth)···C-AA	**Record/playback head adjustment** 1. Test equipment connection is shown below.  **Fig. 11** 2. Play azimuth tape (C-AA 6.3 kHz). 3. Adjust record/playback head angle adjustment screw (B) in fig. 12 so that output level at LINE OUT becomes maximum. 4. Measure both channels, and adjust levels for equal output. 5. After adjustment lock head adjustment screw with lacquer.	* Playback mode  **Fig. 12**

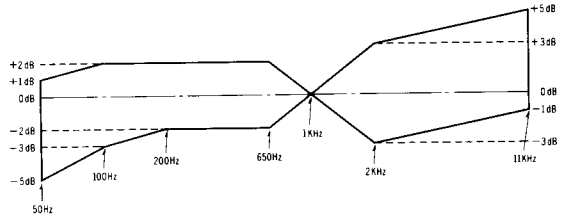
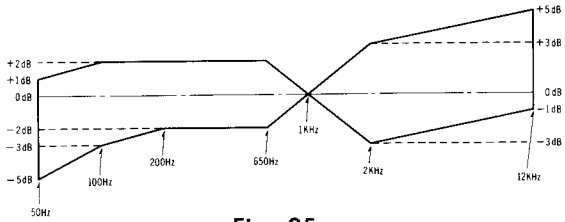
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Tape speed Equipment: * Digital electronic counter or frequency counter (RP8067) * Test tape···C-WAT	**Tape speed accuracy** 1. Test equipment connection is shown below.  **Fig. 13** 2. Play test tape (C-WAT 3,000 Hz), and supply playback signal to frequency counter. 3. Measure this frequency. 4. On the basis of 3,000 Hz, determine value by following formula: $\text{Tape speed accuracy} = \left\{\frac{f-3{,}000}{3{,}000} \times 100\right\}\%$ where, f = measured value 5. Take measurement at middle section of tape. **Standard Value: ±1.5%** **Adjustment method** 1. Play the middle part of test tape. 2. Adjust the tape speed adjustment VR shown in fig. 28 so that frequency becomes 3,000 Hz. **Tape speed fluctuation** Make measurements in same manner as above (beginning, middle and end of tape), and determine difference between maximum and minimum values and calculate as follows: $\text{Tape speed fluctuation} = \left\{\frac{f_1-f_2}{3{,}000} \times 100\right\}\%$ f_1 = maximum value f_2 = minimum value **Standard Value: 1%**	* Playback mode
Wow and flutter Equipment: * Wow meter * Test tape···C-WAT	1. Test equipment connection is shown below.  **Fig. 14** 2. Use wow test tape (3,000 Hz) and measure its playback signal on wow meter. 3. Wow and flutter is expressed in percentage and that measurement can be weighted by JIS network (WRMS). 4. Measure at middle section of test tape. **Standard Value: 0.12% (WRMS)**	* Playback mode

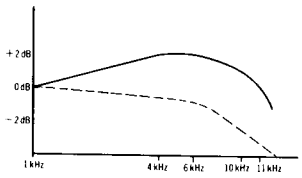
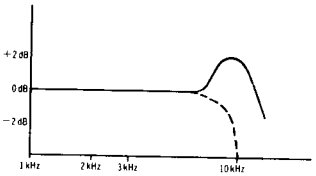
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Playback frequency response Equipment: * VTVM * Oscilloscope * Test tape···C-FH	1. Test equipment connection is as same as "Head azimuth adjustment" but use the test tape (C-FH) instead of head azimuth tape (See fig. 11). 2. Place UNIT into playback mode. 3. Play frequency response test tape (C-FH). 4. Measure output level at 10kHz, 8kHz, 4kHz, 1kHz, 125Hz and 63Hz and compare each output level with standard frequency 333Hz, at LINE OUT. 5. Make measurement for both channels. 6. Make sure that the measured value is within the range specified in the frequency response chart. **Playback frequency response chart**  **Fig. 15** 7. If measured value is not in standard, adjust VR1 (L-CH), VR2 (R-CH) (See fig. 28 on page 14).	* Playback mode
Playback gain Equipment: * VTVM * Oscilloscope * Test tape···C-FH	1. Test equipment connection is shown in fig. 11. 2. Play standard recording level portion on test tape (C-FH 333Hz), and using VTVM measure the output level at LINE OUT jack. 3. Make measurement for both channels. **Standard Value: 0.42V (−7dB)** **Adjustment** 1. If measured value is not standard, adjust VR3 (L-CH), VR4 (R-CH) (See fig. 28 on page 14). 2. After adjustment, check "Playback frequency response" again.	* Playback mode
Playback S/N ratio Equipment: * VTVM * Oscilloscope * Test tape···C-FH * Empty cassette	1. Test equipment connection is shown in fig. 11. 2. Play standard recording level test tape (C-FH 333Hz) and read output level on VTVM. Refer to "Playback gain adjustment". 3. Place empty cassette (which has been cut) and play again. 4. Measure noise level at this time, using VTVM, and determine ratio of this level to test tape output signal voltage (333Hz). **Standard Value: Greater than 47dB** An example calculation is shown below. A: Es = playback output signal voltage of test tape (333Hz) B: En = playback output noise level Es = 0.42V (−7dB) En = 1.8mV (−54dB) $S/N\ ratio = \frac{Es}{En} = \frac{0.42V}{1.8mV} = 233$ $20 \log_{10} 140 = 47dB$ S/N ratio = Es(dB) − En(dB) = −7−(−54) = 47dB	* Playback mode

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Bias current Equipment: * VTVM * Oscilloscope	1. Test equipment connection is shown below.  **Fig. 16** 2. Place UNIT into record mode, and bias selector to "LOW" (for normal tape). 3. Read voltage on VTVM and calculate bias current by following formula: $\text{Bias current (A)} = \frac{\text{Value read on VTVM (V)}}{10\,(\Omega)}$ **Standard Value: 0.4 $^{+0.25}_{-0.15}$ mA** 4. Adjust L5 (L-CH), and L6 (R-CH) (See adjustment part location on page 14). 5. Then changing the bias selector to "HIGH" confirm that bias current becomes the value shown below. **Standard Value: 0.48 $^{+0.25}_{-0.15}$ mA**	* Record mode * Be sure the ground end of the meter is connected to the ground end of the resistor. * When bias current is adjusted on one channel only, note that bias current on the other channel may vary.
Erase current Equipment: * VTVM * Oscilloscope * Resistor (1Ω)	1. Connect 1Ω resistor between ground side terminal of erase head and ground lead wire removed (See fig. 18). 2. Connect VTVM to both ends of 1Ω resistor.  **Fig. 17** 3. Place UNIT into record mode and, measure voltage across the 1Ω resistor. 4. Determine erase current with the following formula: $\text{Erase current (A)} = \frac{\text{Voltage across 1}\,\Omega\text{ resistor (V)}}{1\,(\Omega)}$ **Standard Value: More than 70 mA**	* Record mode  **Fig. 18**

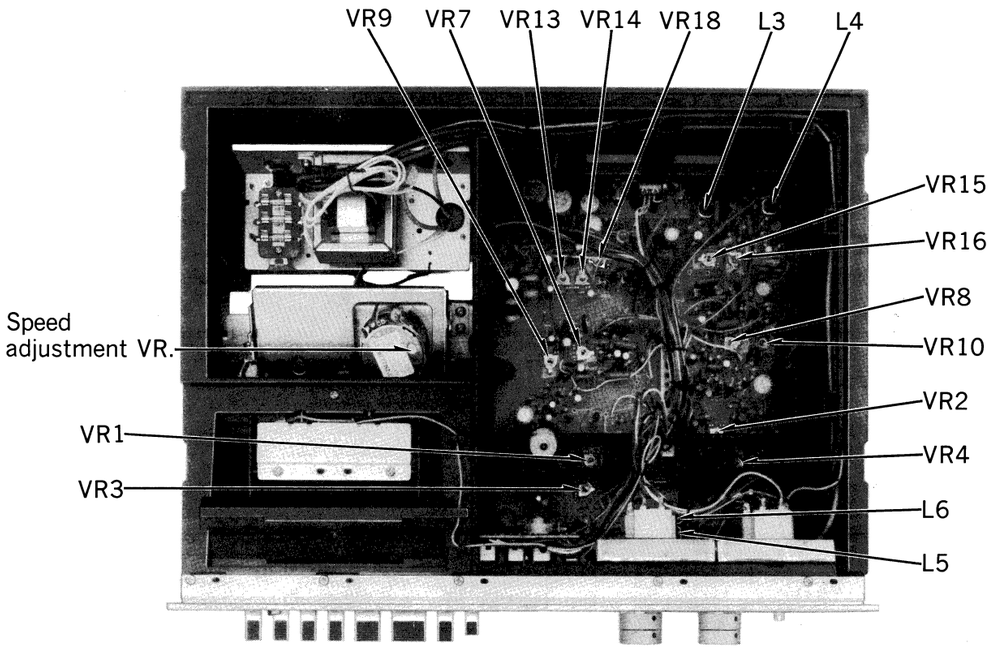
ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Overall gain Equipment: * AF oscillator * VTVM * ATT * Oscilloscope * Test tape (reference blank tape) C-RA for Normal	1. Test equipment connection is shown in fig. 19.  **Fig. 19** 2. Place UNIT into record mode. 3. Supply 1 kHz signal (−24 dB) from AF oscillator, through ATT, to LINE IN. 4. Adjust ATT until monitor level at LINE OUT becomes 0.42 V (−7 dB). 5. Using test tape (C-RA), make recording. 6. Playback recorded tape, and make sure the value at LINE OUT on VTVM becomes 0.42 V. 7. If measured value is not 0.42 V, adjust VR15 (L-CH), VR16 (R-CH) (See fig. 28 on page 14). 8. Repeat from step (2).	* Record/playback mode * LINE IN level control ···MAX * Input selector···LINE IN * Standard input level: MIC ····· −72 ± 3 dB LINE IN −24 ± 3 dB
Level meter Equipment: * VTVM * Oscilloscope * AF oscillator * ATT	**When there is no signal** 1. Turn off the power supply to the set. 2. Check whether the indication needles of the level meters are in the position shown in fig. 20.  **Fig. 20** 3. If they deviate to the position shown above, adjust the zero adjuster. 4. Turn on the power supply to the set.	* Record mode

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
	When standard recording level is supplied. Test equipment connection are shown in fig. 21.  **Fig. 21** 5. Set the peak level check switch to the "IN" position. 6. Supply a 1 kHz signal from the AF oscillator, through the ATT, to the LINE IN Jack. 7. Adjust the ATT so that the monitor level at LINE OUT becomes 0.42 V. 8. Adjust VR13 (L-CH) and VR14 (R-CH) so that the VU meters indicate 0 VU. (See fig. 22).  **Fig. 22** Balance of left and right level meters 9. Set the peak level check switch to the "OUT" position. 10. Then adjust VR18 for R-CH so that left and right VU meters show the same indication.	* Input selector···LINE IN
Overall distortion Equipment: * Distortion meter * AF oscillator * ATT * Oscilloscope * Test tape (reference blank tape) C-RA for Normal C-RF for CrO_2	1. Test equipment connection is shown in fig. 23.  **Fig. 23** 2. Supply 1 kHz signal to LINE IN and adjust ATT so that output level at LINE OUT indicates 0.42 V (−7 dB). 3. Make recording. 4. Playback and measure distortion factor of output signal. 5. When the distortion factor does not satisfy the standard, check the bias current. When the bias current is lower than standard, distortion will increase. Care should be exercised in the adjustment because the bias current also has an influence on the overall frequency response. Refer to "The overall frequency response" and "The bias current adjustment". **Standard Value: Less than 2.3% (Normal)** **Less than 3.3% (CrO_2)**	* LINE IN level control ···MAX * Input selector···LINE IN

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
Overall frequency response Equipment: * VTVM * AF oscillator * ATT * Test tape (reference blank tape) C-RA for Normal C-RF for CrO_2	**Note:** Before measuring and adjusting, make sure of the playback frequency response (For the method of measurement, please refer to the playback frequency response). 1. Test equipment connection is shown in fig. 19. 2. Load reference blank test tape and place UNIT into record mode. 3. Supply 1 kHz signal from AF oscillator through ATT to LINE IN. 4. Adjust ATT so that input level is −20 dB below standard recording level (standard recording level = 0 VU). 5. At this time, LINE OUT level indicates 0.042 V. 6. Record each frequency 50 Hz, 100 Hz, 200 Hz, 700 Hz, 1 kHz, 1.5 kHz, 2 kHz, 4 kHz and 10 kHz (11 kHz for CrO_2) at the same level. 7. Playback and express in dB the difference between playback output level of each frequency based on playback output level of 1 kHz. 8. Make sure that the measured value is within the range specified in the overall frequency response chart. **Overall frequency response chart (Normal)**  **Fig. 24** 9. Set the bias selector to "HIGH" and EQ. selector to "70μ" position. 10. Measure as same as manner above. 11. Make sure that the measured value is within the range specified in the overall frequency response chart for CrO_2 tape below. **Overall frequency response chart (CrO_2)**  **Fig. 25**	* Record/playback mode * Record level control ···MAX * Use test tape C-RA * Input selector···LINE IN * Use test tape C-RF
Overall frequency response adjustment (As a standard for adjustment)	1. When the frequency response between the middle- and high-frequency range becomes higher than the standard value, as shown by the solid line in figure 26, increase the bias current by turning L5 (L-CH), L6 (R-CH). 2. When it becomes lower, as shown by dotted line, reduce the bias current by turning L5 (L-CH), L6 (R-CH). **Note:** 1. For adjustment when the bias current is lower than the standard value 0.17 mA, use the procedure indicated in adjustment 2, because reducing the bias current beyond this point may worsen the distortion factor. 2. For the method of bias current measurement, refer to "Bias Current Adjustment" on page 9.	

ITEM	MEASUREMENT & ADJUSTMENT	REMARKS
	Adjustment 1-Using bias current  **Fig. 26** Adjustment 2-Using the peaking coil for recording equalization 1. When the frequency response is flat in the middle-frequency range and makes a sharp rise or drop in the high-frequency range, as shown in fig. 27, adjust by turning the peaking coil L3 (L-CH), L4 (R-CH) for normal tape recording equalization.  **Fig. 27**	
Overall S/N ratio Equipment: * VTVM * AF oscillator * ATT * Oscilloscope * Test tape (reference blank tape) ···C-RA	1. Test equipment connection is shown in fig. 19. 2. Supply 1kHz signal to LINE IN and adjust ATT so that output level at LINE OUT indicates 0.42V (−7dB). 3. Make recording. 4. Make another recording without supplying signal (disconnect input plug to LINE IN). 5. Rewind to recorded part and playback. 6. Measure output signal level and no signal level (noise), and determine the ratio in decibels (dB). 7. The value is different between "Playback S/N and overall S/N", but for decibel calculation refer to "Playback S/N measurement" on page 8. **Standard Value: Greater than 42dB (without NAB filter)**	* Record/playback mode * LINE IN level control ···MAX * Erase the tape with a bulk tape eraser. * Input selector···LINE IN
Dolby NR circuit Equipment: * VTVM * AF oscillator * ATT * Oscilloscope	1. Place UNIT into record mode, set the Dolby NR switch to OUT position and supply to LINE IN to obtain −34.5dB at TP3 (L-CH), TP4 (R-CH) (frequency 5kHz). 2. Confirm that the value at IN position is 8dB greater than the value at OUT position of Dolby NR switch. 3. When it is not in condition above, adjust as follows. 4. Set VR7 (L-CH), VR8 (R-CH) to maximum. 5. Set the Dolby NR switch to IN position. 6. At this time adjust VR9 (L-CH), VR10 (R-CH) so that the reading of VTVM become 10dB greater than the value in step (1) above. 7. Adjusting VR7 (L-CH), VR8 (R-CH), make the reading of VTVM become 2dB smaller than the value obtainted through the adjustment in step (6) above.	* Record mode * LINE IN level control ···MAX * Input selector···LINE IN

ADJUSTMENT PARTS LOCATION



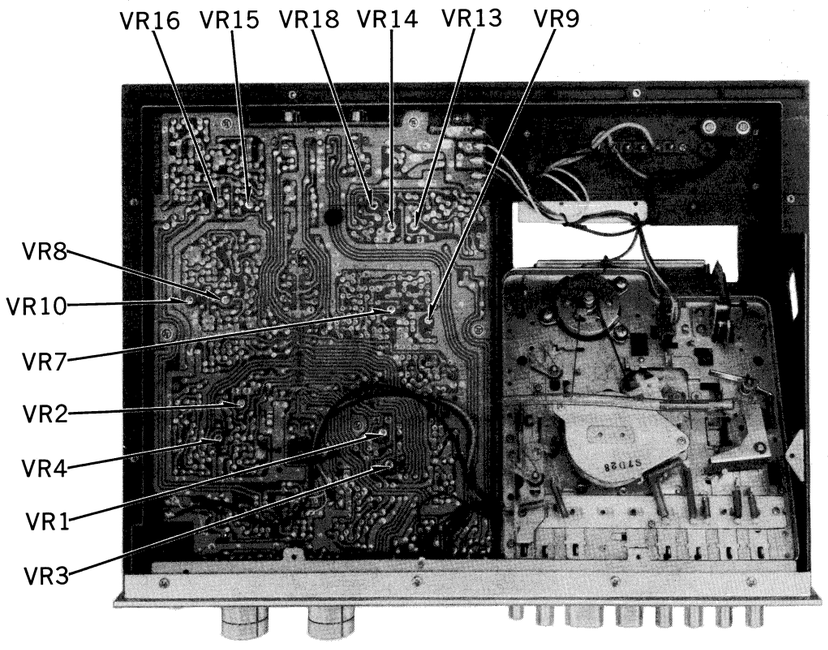
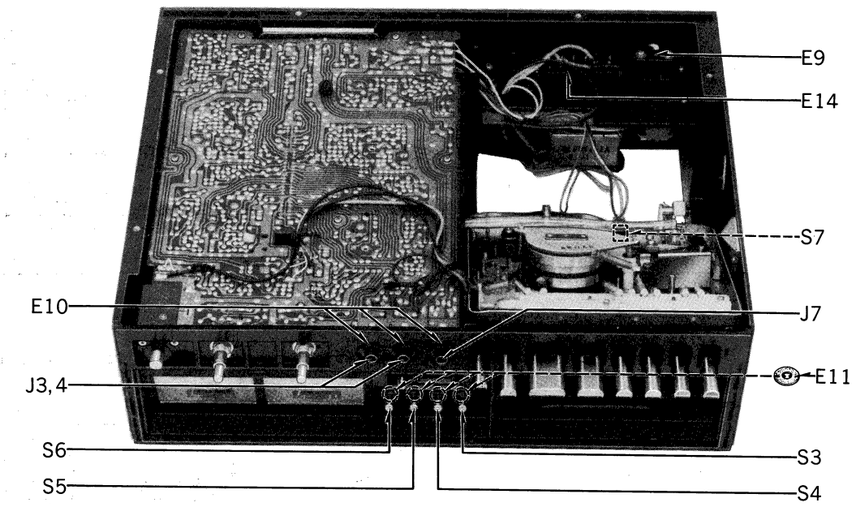
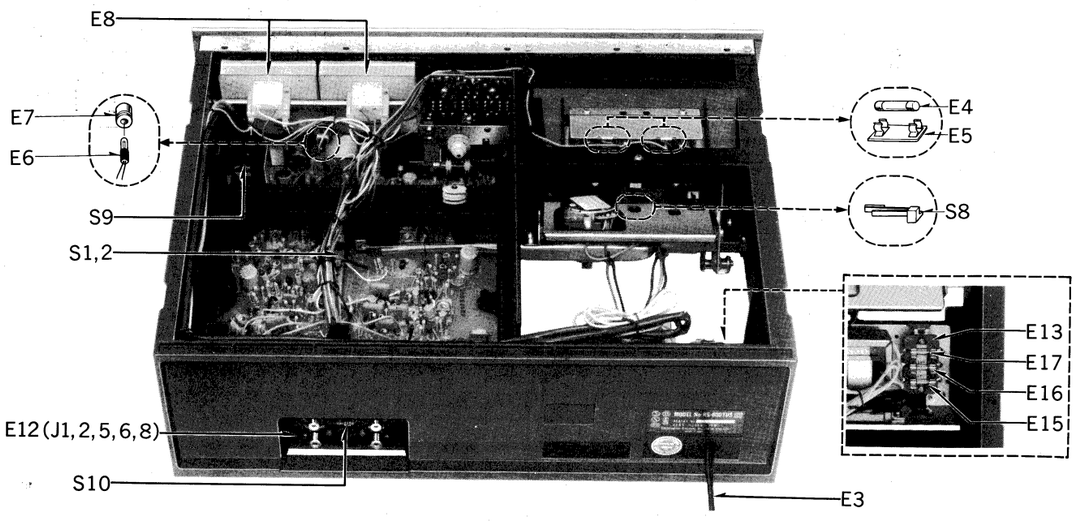


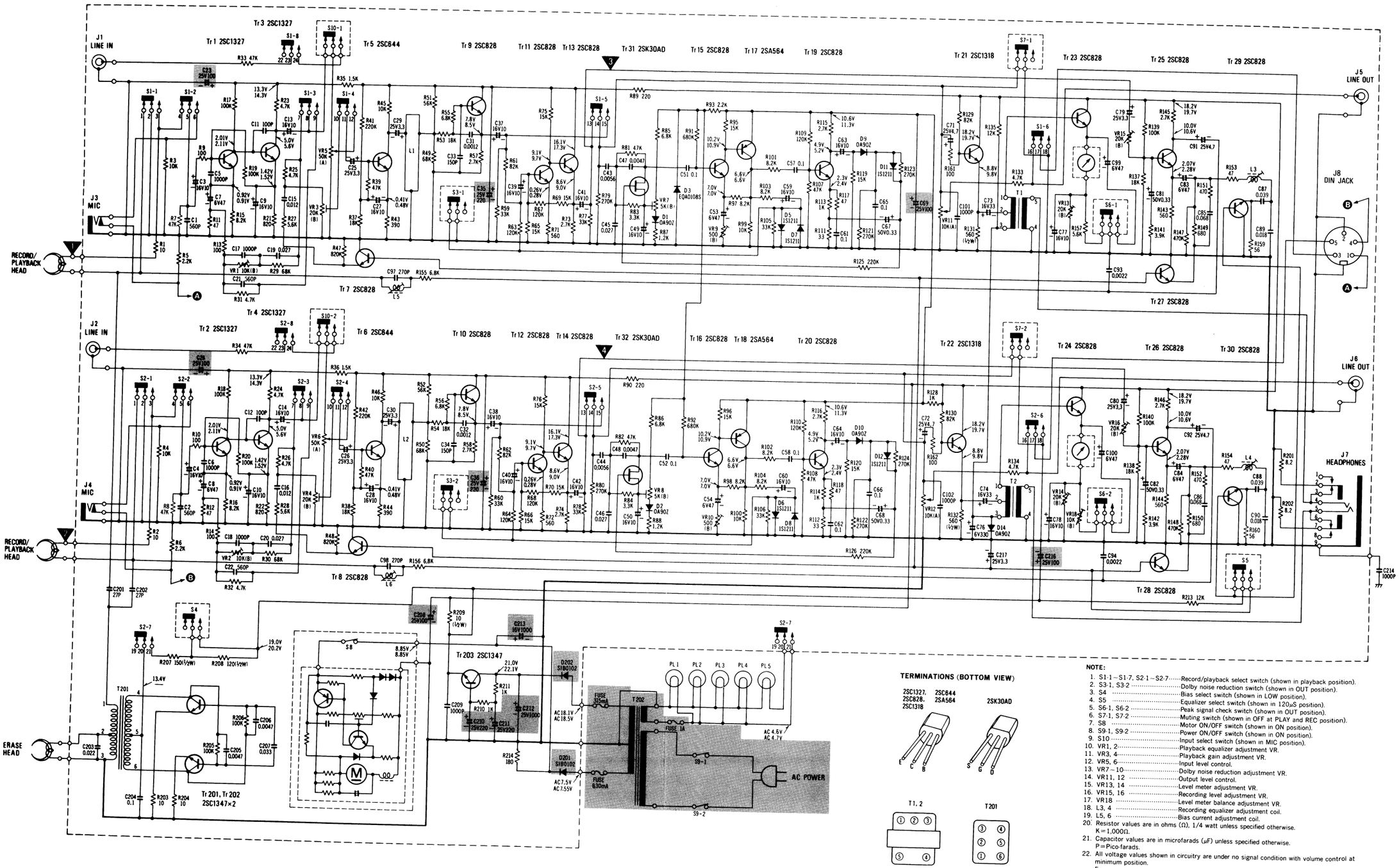
Fig. 28

ELECTRICAL PARTS LOCATION





SCHEMATIC DIAGRAM MODEL RS-630TUS-D

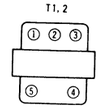


TERMINATIONS (BOTTOM VIEW)

2SC1327, 2SC828, 2SC1318 / 2SC644, 2SA564

2SK30AD

T1, 2



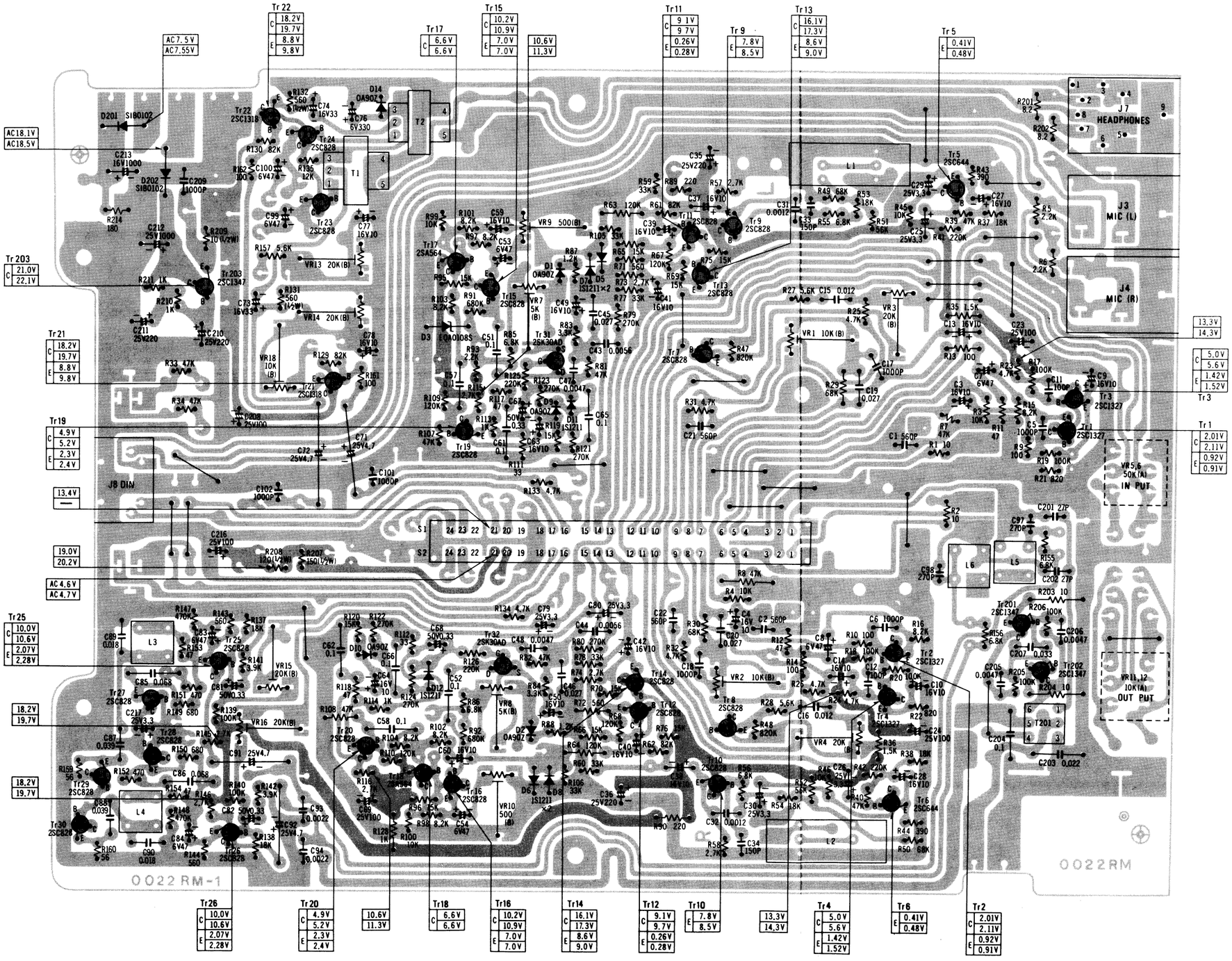
T201

NOTE:

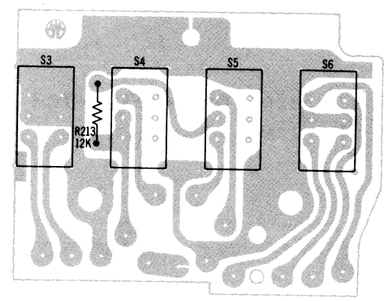
1. S1-1 ~ S1-7, S2-1 ~ S2-7 ..... Record/playback select switch (shown in playback position).
2. S3-1, S3-2 ..... Dolby noise reduction switch (shown in OUT position).
3. S4 ..... Bias select switch (shown in LOW position).
4. S5 ..... Equalizer select switch (shown in 120μS position).
5. S6-1, S6-2 ..... Peak signal check switch (shown in OUT position).
6. S7-1, S7-2 ..... Muting switch (shown in OFF at PLAY and REC position).
7. S8 ..... Motor ON/OFF switch (shown in ON position).
8. S9-1, S9-2 ..... Power ON/OFF switch (shown in ON position).
9. S10 ..... Input select switch (shown in MIC position).
10. VR1, 2 ..... Playback equalizer adjustment VR.
11. VR3, 4 ..... Playback gain adjustment VR.
12. VR5, 6 ..... Input level control.
13. VR7 ~ 10 ..... Dolby noise reduction adjustment VR.
14. VR11, 12 ..... Output level control.
15. VR13, 14 ..... Level meter adjustment VR.
16. VR15, 16 ..... Recording level adjustment VR.
17. VR18 ..... Level meter balance adjustment VR.
18. L3, 4 ..... Recording equalizer adjustment coil.
19. L5, 6 ..... Bias current adjustment coil.
20. Resistor values are in ohms (Ω), 1/4 watt unless specified otherwise. K=1,000Ω.
21. Capacitor values are in microfarads (μF) unless specified otherwise. P=Pico-farads.
22. All voltage values shown in circuitry are under no signal condition with volume control at minimum position.
    For measurement, use VTVM.
    The upper values should be measured during recording and the lower values during playback.
23. The mark (▼) shows test point. e.g. ▽=Test point 1.
24. For parts which are shaded (▒), only parts specified by the manufacturer should be used for replacement in critical circuit.

CIRCUIT BOARD

MAIN CIRCUIT BOARD

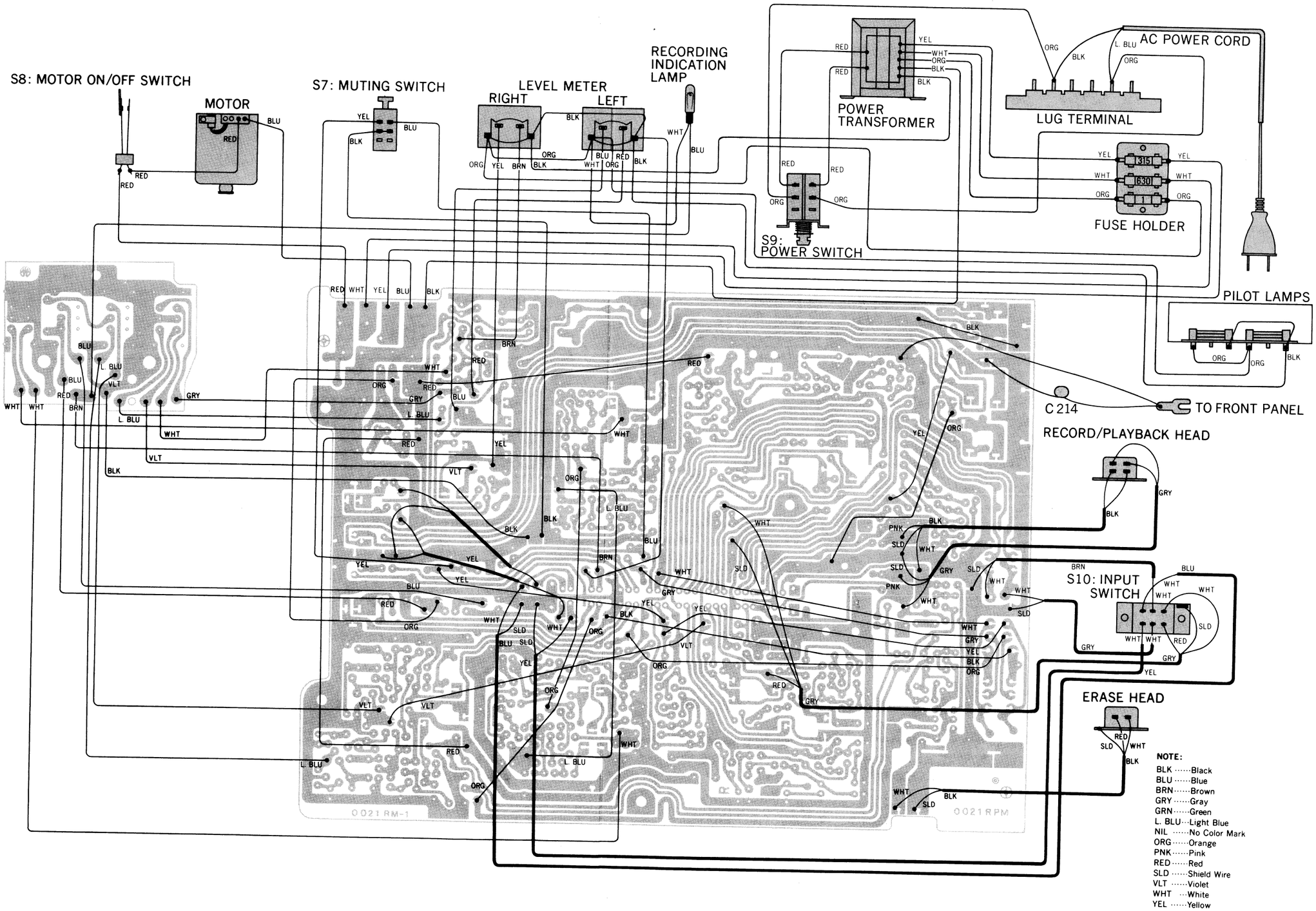


SWITCH CIRCUIT BOARD

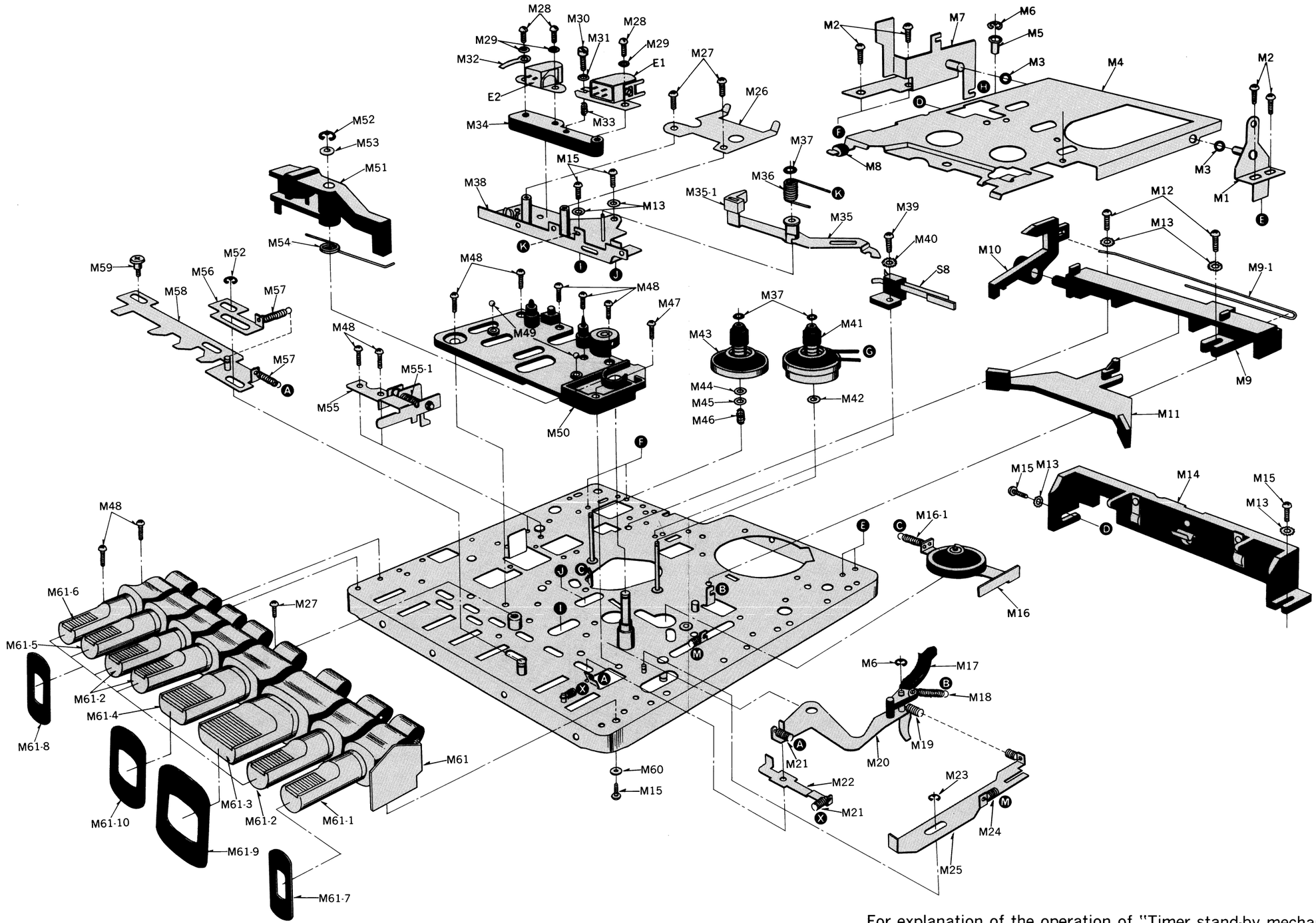


NOTE:
The circuit shown in red on the conductor is B circuit.
Values indicated in ▭ are DC voltage between the chassis and electrical parts.
The upper values should be measured during recording and the lower values during playback.

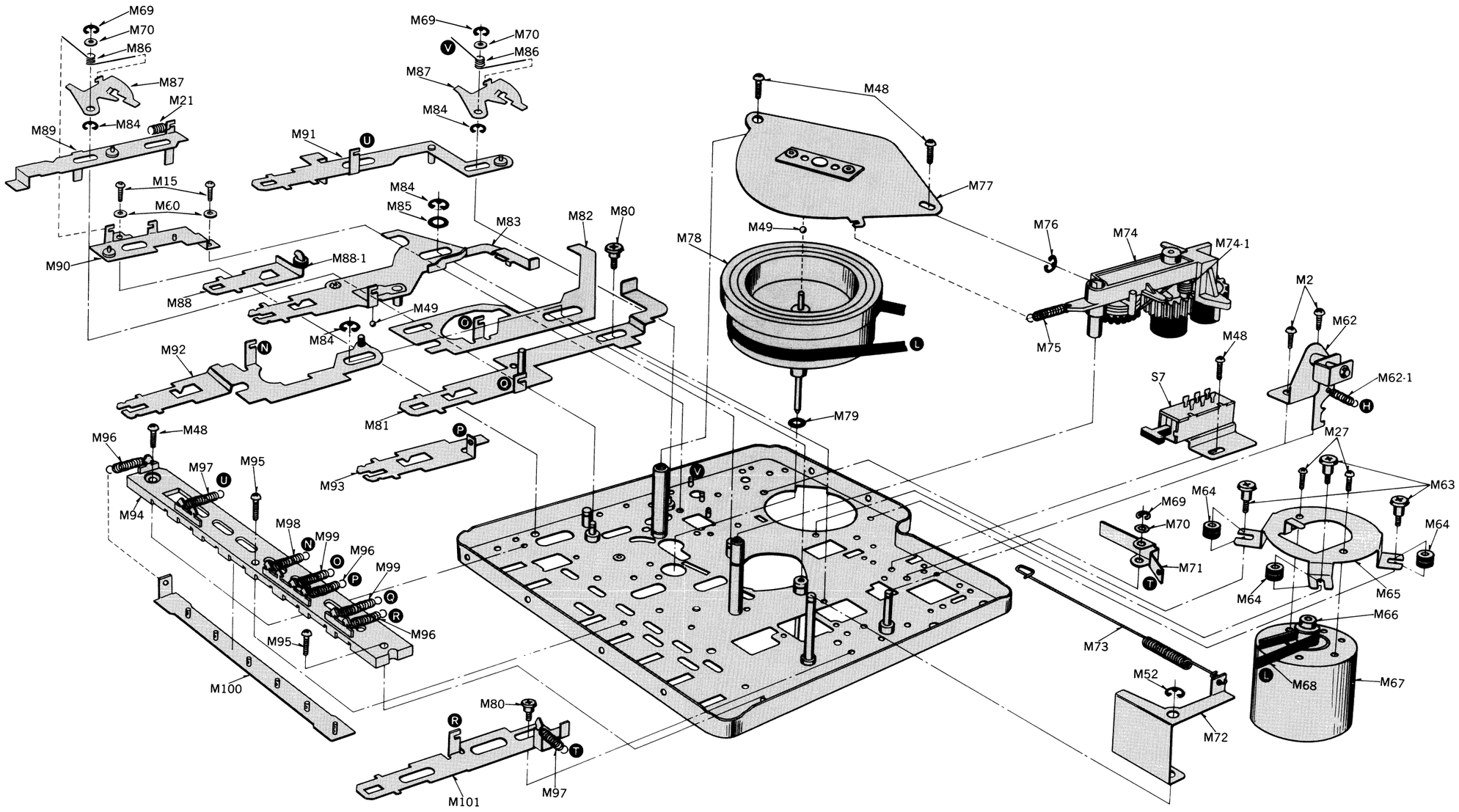
WIRING CONNECTION DIAGRAM MODEL RS-630TUS-D



EXPLODED VIEWS



※ For explanation of the operation of "Timer stand-by mechanism", refer to the service manual of RS-615US.


M69
M70
M86
M87
M21
M84
M89
M15
M60
M90
M88
M88-1
M91
M69
M70
M86
M87
M84
M84
M85
M83
M82
M80
M49
M84
M92
M81
M96
M48
M97
M95
M94
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M95
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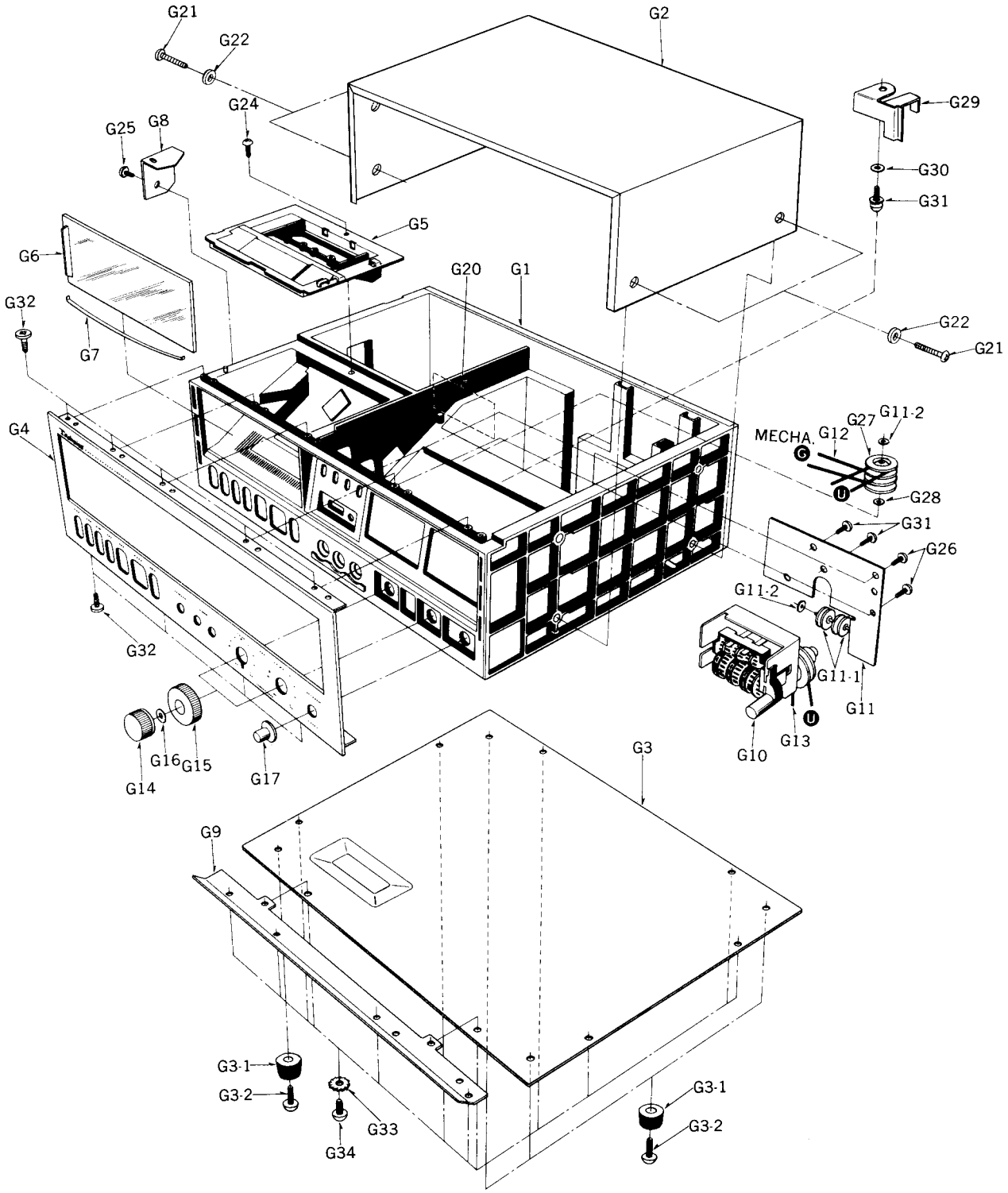
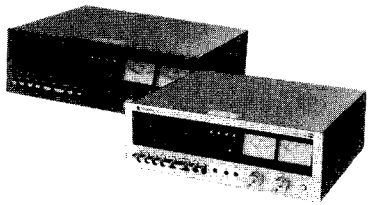
M93
M80
M101
M97
M48
M77
M78
M49
M79
M76
M74
M74-1
M75
M2
M62
M62-1
M48
S7
M27
M63
M64
M69
M70
M71
M64
M64
M65
M66
M73
M52
M68
M67
M72

CABINET PARTS



REPLACEMENT PARTS LIST

Technics MODEL RS-630TUS-D



RS-630TUS-D

NOTE:

1. Be sure to make your orders of replacement parts according to this list.
2. "Ⓝ" in "Remarks" column indicates new parts.
3. For parts which are shaded ( ), only parts specified by the manufacturer should be used for replacement in critical circuit.

NOTA:

1. Habrá que asegurarse que los pedidos de piezas de repuesto se hagan según esta lista.
2. "Ⓝ" marcado en la columna "Remarks", quiere decir que las piezas son nuevas.
3. Para las partes de la lista que están sombreadas ( ), deben ser usadas para hacer el reemplazo en los circuitos críticos solamente las partes que están especificadas por el productor.

NOTE:

1. Bien s'assutet de se conformer à la liste suivante pour les commandes de pièces de rechange.
2. "Ⓝ", dans la colonne "Remarks", indique les pièces nouvelles.
3. Concernant les pièces dans les parties hachurées ( ), doivent être remplacées dans les circuits critiques uniquement par des pièces spécifiées par le fabricant.

HIENWEIS:

1. Bestellen Sie Ihre Ersatzteile genau nach dieser Liste.
2. "Ⓝ" in der "Remarks" Spalte bedeutet "neue Teile".
3. Für diejenigen Positionen in der Ersatzteil-Liste, die auf schraffiertem Untergrund ( ) gedruckt sind, dürfen nur vom Hersteller zugelassenene Fabrikate als Ersatzteile in den kritischen Schaltkreisen verwendet werden.

按：

1. 關於代用零件之訂購，務請依照此表而行之爲荷。
2. 「備考」(Remarks)一欄中之 "Ⓝ" 形符號標記表示該零件爲新出品。
3. 印有灰色( )的標號表示，祇有那些由製造公司所指定及證明的零件，才能用來代換。

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		MECHANICAL PARTS		
M1	QXA0292	Cassette Base Plate Holding Angle	1	RS-630USD
M2	XTN3+8B	Tapping Screw ⊕3×8	6	〃
M3	QBW2019	Washer	2	〃
M4	QXK1713	Cassette Base Plate Assembly	1	〃
M5	QDP1595	Roller	1	〃
M6	XUC25FT	Stop Ring 2.5φ	2	COMMON
M7	QXA0465	Cassette Base Plate Holding Angle	1	RS-630USD
M8	QBG1132	Cushion Rubber	1	〃
M9	QXT0004	Brake Holder	1	〃
M9-1	QBN1486	Brake Spring	1	〃
M10	QBJ1975B	Erase Safety Lever-B	1	〃
M11	QBJ1941A	Brake	1	〃
M12	XSN26+8	Screw ⊕2.6×8	2	COMMON
M13	XWC26B	Lock Washer	4	〃
M14	QXZ0044	Cassette Retainer Assembly	1	RS-630USD
M15	XSN26+6	Screw ⊕2.6×6	2	COMMON
M16	QXLM008	Idler Lever Assembly	1	RS-630USD
M16-1	QBT1558M	Idler Spring	1	〃
M17	QML3061	Auto-Stop Driving Pawl	1	Ⓝ
M18	QBT1489M	Auto-Stop Spring	1	RS-630USD
M19	QBT1822M	Eject Lever Spring	1	Ⓝ
M20	QXL1046	Auto-Stop Driving Lever Assembly	1	Ⓝ
M21	QBT1558M	Idler Spring	2	RS-630USD
M22	QML3057	Timer Lever-A	1	Ⓝ
M23	XUC3FT	Stop Ring 3φ	1	COMMON
M24	QBT1536DM	Playback Lever Spring	1	RS-630USD
M25	QML3058	Timer Lever-B	1	Ⓝ
M26	QMF1814	Cassette Holder	1	RS-630USD
M27	XSN26+3	Screw ⊕2.6×3	3	COMMON
M28	XSN2+12	Screw ⊕2×12	3	〃
M29	XWA2B	Spring Washer	3	〃
M30	QHQ1199A	Screw for Head Adjustment	1	〃
M31	XWE2	Flat Washer 2φ	1	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M32	QTD1163	Cord Clamper	1	RS-630USD
M33	QBC1103A	Head Spring	1	〃
M34	QBJ2087A	Head Spacer	1	〃
M35	QXL1048	Auto-Stop Detecting Lever Assembly	1	RS-615USD
M35-1	QBJ1538A	Auto-Stop Detecting Piece	1	RS-630USD
M36	QBN1390	Auto-Stop Detecting Lever Spring	1	〃
M37	QWQ1124	Snap Washer	3	〃
M38	QXK1717	Head Base Plate Assembly	1	〃
M39	XSN2+5	Screw ⊕2×5	1	COMMON
M40	XWC2B	Lock Washer 2φ	1	〃
M41	QXD0050	Takeup Reel Table Assembly	1	RS-630USD
M42	QBJ3220	Washer	1	〃
M43	QXD0034	Supply Reel Table Assembly	1	〃
M44	QBW2013	Washer	1	〃
M45	QBW2012	〃	1	〃
M46	QBC1272	Back Tension Spring	1	〃
M47	XYN26+C10	Screw with Washer ⊕2.6×10	3	COMMON
M48	XYN26+C6	Screw with Washer ⊕2.6×6	19	〃
M49	QDK1012	Steel Ball 2.5φ	4	RS-630USD
M50	QXK1716	Upper Base Plate Assembly	1	〃
M51	QXLM010	Pressure Roller Assembly	1	〃
M52	XUC3FT	Stop Ring 3φ	3	COMMON
M53	QBW2018	Washer	1	RS-630USD
M54	QBN1389	Pressure Roller Spring	1	〃
M55	QXL0991	Up Lever Assembly	1	〃
M55-1	QBN1485	Up Lever Spring	1	〃
M56	QMR1411	Operation Lever-C	1	〃
M57	QBT1558M	Idler Spring	1	〃
M58	QXR0179	Operation Rod Assembly	1	〃
M59	QHQ1169	Step Screw	1	〃
M60	XWA26B	Washer	1	COMMON
M61	QXB0445A	Push Button Assembly	1	Ⓝ
M61-1	QXB0483	Push Button (TIMER)	1	Ⓝ
M61-2	QXB0478	Push Button (REW, FF, PAUSE)	3	Ⓝ
M61-3	QXB0479	Push Button (STOP)	1	Ⓝ

RS-630TUS-D

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M61-4	QXB0480	Push Button (PLAY)	1	Ⓝ
M61-5	QXB0481	Push Button (RECORD)	1	Ⓝ
M61-6	QXB0482	Push Button (EJECT)	1	Ⓝ
M61-7	QBG1566	Push Button Cover	1	Ⓝ
M61-8	QBG1541	〃	5	RS-630USD
M61-9	QBG1543	〃	1	〃
M61-10	QBG1542	〃	1	〃
M62	QXL0990	Click Lever Assembly	1	〃
M62-1	QBT1817	Click Lever Spring	1	〃
M63	QMS1833	Step Screw	3	〃
M64	QBG1055A	Motor Rubber Cushion	3	〃
M65	QMA1952A	Motor Angle	1	〃
M66	QXP0347B	Motor Pulley Assembly	1	RQ-320SD
M66-1	XSN2+3	Screw ⊕2×3	1	COMMON
M67	QDM0981XPRB	Motor	1	RS-610USD
M68	QDB0141	Capstan Belt	1	RS-630USD
M69	XUC2FT	Stop Ring 2φ	3	COMMON
M70	QBK7121	Fiber Washer	3	RS-630USD
M71	QML2712	Eject Operation Lever	1	〃
M72	QML2950	Record/Playback Lever	1	〃
M73	QBT1818	Record/Playback Spring	1	〃
M74	QXG1014E	Fast Wind Lever Assembly	1	〃
M74-1	QBN1447A	Gear Lever Spring	1	〃
M75	QBT1485M	Fast Forward Lever Spring	1	〃
M76	XUC4FT	Stop Ring 4φ	1	COMMON
M77	QXH0095B	Flywheel Retainer	1	RS-630USD
M78	QXF0115	Flywheel Assembly	1	〃
M79	QBJ3221	Washer	1	〃
M80	QHQ1168	Step Screw	2	〃
M81	QXL0828	Record Lever Assembly	1	〃
M82	QMR1307A	Fast Forward Lever Assembly	1	〃
M83	QXRM0002A	Playback Lever Assembly	1	〃
M84	XUC5FT	Stop Ring 5φ	3	COMMON
M85	QBK7130A	Fiber Washer	1	RS-630USD
M86	QBN1271	Lock Spring	2	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
M87	QML2379B	Lock Plate	2	RS-630USD
M88	QXR0241	Stop Rod Assembly	1	〃
M88-1	QBG1497A	Brake Rubber	1	〃
M89	QXL1044	Timer Lever Assembly	1	Ⓝ
M90	QXA0547	Timer Angle Assembly	1	Ⓝ
M91	QXR0268	Pause Lever Assembly	1	Ⓝ
M92	QXR0002B	Fast Forward Rod Assembly	1	RS-630USD
M93	QML1953A	Rewind Lever	1	〃
M94	QGG0050	Lever Guide	1	〃
M95	XYN26+C10	Screw ⊕2.6×10	2	COMMON
M96	QBT1580M	Stop Lever Spring	3	RS-630USD
M97	QBT1604M	Eject Lever-C Spring	2	〃
M98	QBT1536DMA	Playback Lever Spring	1	〃
M99	QBT1486DM	Record Lever Spring	2	〃
M100	QXH0227	Push Button Lock Plate	1	RS-640USD
M101	QMR1446	Eject Rod	1	RS-630USD
		RESISTORS		
R1, 2	ERD25TJ100	Carbon Resistor 10Ω 1/4W	2	
R3, 4	ERD25TJ103	〃 10KΩ 1/4W	2	
R5, 6	ERD25TJ222	〃 2.2KΩ 1/4W	2	
R7, 8	ERD25TJ473	〃 47KΩ 1/4W	2	
R9, 10	ERD25TJ101	〃 100Ω 1/4W	2	
R11, 12	ERD25TJ470	〃 47Ω 1/4W	2	
R13, 14	ERD25TJ101	〃 100Ω 1/4W	2	
R15, 16	ERD25TJ822	〃 8.2KΩ 1/4W	2	
R17, 18, 19, 20	ERD25TJ104	〃 100KΩ 1/4W	4	
R21, 22	ERD25TJ821	〃 820Ω 1/4W	2	
R23, 24, 25, 26	ERD25TJ472	〃 4.7KΩ 1/4W	4	
R27, 28	ERD25TJ562	〃 5.6KΩ 1/4W	2	
R29, 30	ERD25TJ683	〃 68KΩ 1/4W	2	
R31, 32	ERD25TJ472	〃 4.7KΩ 1/4W	2	
R33, 34	ERD25TJ473	〃 47KΩ 1/4W	2	
R35, 36	ERD25TJ152	〃 1.5KΩ 1/4W	2	
R37, 38	ERD25TJ183	〃 18KΩ 1/4W	2	

RS-630TUS-D

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R39, 40	ERD25TJ473	Carbon Resistor 47KΩ 1/4W	2	
R41, 42	ERD25TJ224	〃 220KΩ 1/4W	2	
R43, 44	ERD25TJ391	〃 390Ω 1/4W	2	
R45, 46	ERD25TJ103	〃 10KΩ 1/4W	2	
R47, 48	ERD25TJ824	〃 820KΩ 1/4W	2	
R49, 50	ERD25TJ683	〃 68KΩ 1/4W	2	
R51, 52	ERD25TJ563	〃 56KΩ 1/4W	2	
R53, 54	ERD25TJ183	〃 18KΩ 1/4W	2	
R55, 56	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R57, 58	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R59, 60	ERD25TJ333	〃 33KΩ 1/4W	2	
R61, 62	ERD25TJ823	〃 82KΩ 1/4W	2	
R63, 64	ERD25TJ124	〃 120KΩ 1/4W	2	
R65, 66	ERD25TJ153	〃 15KΩ 1/4W	2	
R67, 68	ERD25TJ124	〃 120KΩ 1/4W	2	
R69, 70	ERD25TJ153	〃 15KΩ 1/4W	2	
R71, 72	ERD25TJ561	〃 560Ω 1/4W	2	
R73, 74	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R75, 76	ERD25TJ153	〃 15KΩ 1/4W	2	
R77, 78	ERD25TJ333	〃 33KΩ 1/4W	2	
R79, 80	ERD25TJ274	〃 270KΩ 1/4W	2	
R81, 82	ERD25TJ473	〃 47KΩ 1/4W	2	
R83, 84	ERD25TJ332	〃 3.3KΩ 1/4W	2	
R85, 86	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R87, 88	ERD25TJ122	〃 1.2KΩ 1/4W	2	
R89, 90	ERD25TJ221	〃 220Ω 1/4W	2	
R91, 92	ERD25TJ684	〃 680KΩ 1/4W	2	
R93	ERD25TJ222	〃 2.2KΩ 1/4W	1	
R95, 96	ERD25TJ153	〃 15KΩ 1/4W	2	
R97, 98	ERD25TJ822	〃 8.2KΩ 1/4W	2	
R99, 100	ERD25TJ103	〃 10KΩ 1/4W	2	
R101, 102, 103, 104				
	ERD25TJ822	〃 8.2KΩ 1/4W	4	
R105, 106	ERD25TJ333	〃 33KΩ 1/4W	2	
R107, 108	ERD25TJ473	〃 47KΩ 1/4W	2	

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R109, 110	ERD25TJ124	Carbon Resistor 120KΩ 1/4W	2	
R111, 112	ERD25TJ330	〃 33Ω 1/4W	2	
R113, 114	ERD25TJ102	〃 1KΩ 1/4W	2	
R115, 116	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R117, 118	ERD25TJ470	〃 47Ω 1/4W	2	
R119, 120	ERD25TJ153	〃 15KΩ 1/4W	2	
R121, 122, 123, 124				
	ERD25TJ274	〃 270KΩ 1/4W	4	
R125, 126	ERD25TJ224	〃 220KΩ 1/4W	2	
R128	ERD25TJ102	〃 1KΩ 1/4W	1	
R129, 130	ERD25TJ823	〃 82KΩ 1/4W	2	
R131, 132	ERD25TJ561	〃 560Ω 1/4W	2	
R133, 134	ERD25TJ472	〃 4.7KΩ 1/4W	2	
R135	ERD25TJ123	〃 12KΩ 1/4W	1	
R137, 138	ERD25TJ183	〃 18KΩ 1/4W	2	
R139, 140	ERD25TJ104	〃 100KΩ 1/4W	2	
R141, 142	ERD25TJ392	〃 3.9KΩ 1/4W	2	
R143, 144	ERD25TJ561	〃 560Ω 1/4W	2	
R145, 146	ERD25TJ272	〃 2.7KΩ 1/4W	2	
R147, 148	ERD25TJ474	〃 470KΩ 1/4W	2	
R149, 150	ERD25TJ681	〃 680Ω 1/4W	2	
R151, 152	ERD25TJ471	〃 470Ω 1/4W	2	
R153, 154	ERD25TJ470	〃 47Ω 1/4W	2	
R155, 156	ERD25TJ682	〃 6.8KΩ 1/4W	2	
R157	ERD25TJ562	〃 5.6KΩ 1/4W	1	
R159, 160	ERD25TJ560	〃 56Ω 1/4W	2	
R161, 162	ERD25TJ101	〃 100Ω 1/4W	2	
R201, 202	ERD25TJ8R2	〃 8.2Ω 1/4W	2	
R203, 204	ERD25TJ100	〃 10Ω 1/4W	2	
R205, 206	ERD25TJ104	〃 100KΩ 1/4W	2	
R207	ERD50TJ151	〃 150Ω 1/4W	1	
R208	ERD50TJ121	〃 120Ω 1/4W	1	
R209	ERD50TJ100	〃 10Ω 1/4W	1	
R210, 211	ERD25TJ102	〃 1KΩ 1/4W	2	
R213	ERD25TJ123	〃 12KΩ 1/4W	1	

RS-630TUS-D

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
R214	ERD25TJ181	Carbon Resistor 180Ω 1/4W	1	
		VARIABLE RESISTORS		
VR1, 2	EVLS3AA00B14	Semi-fixed Variable Resistor 10KΩ (B)	2	RS-630USD
VR3, 4	EVLS3AA00B24	〃 20KΩ (B)	2	〃
VR5, 6	EWKN5AR20A54	Variable Resistor 50KΩ (A)	1	〃
VR7, 8	EVLS3AA00B53	Semi-fixed Variable Resistor 5KΩ (B)	2	〃
VR9, 10	EVLS3AA00B52	〃 500Ω (B)	2	〃
VR11, 12	EWKN5AR20A14	Variable Resistor 10KΩ (A)	1	〃
VR13, 14, 15, 16	EVLS3AA00B24	Semi-fixed Variable Resistor 20KΩ (B)	4	〃
VR18	EVLS3AA00B14	〃 10KΩ (B)	1	〃
		CAPACITORS		
C1, 2	ECKD1H561KB	Ceramic Capacitor 560pF	2	
C3, 4	ECEA16Z10	Electrolytic Capacitor 10μF	2	
C5, 6	ECKD1H102KB	Ceramic Capacitor 1000pF	2	
C7, 8	ECEA16V47	Electrolytic Capacitor 47μF	2	
C9, 10	ECEA16V10	〃 10μF	2	
C11, 12	ECCD1H101K	Ceramic Capacitor 100pF	2	
C13, 14	ECEA16Z10	Electrolytic Capacitor 10μF	2	
C15, 16	ECQM05123KZ	Mylar Capacitor 0.012μF	2	
C17, 18	ECKD1H102KB	Ceramic Capacitor 1000pF	2	
C19, 20	ECQM05273KZ	Mylar Capacitor 0.027μF	2	
C21, 22	ECKD1H561KB	Ceramic Capacitor 560pF	2	
C23, 24	ECEA25V100	Electrolytic Capacitor 100μF	2	
C25, 26	ECEA50Z3R3	〃 3.3μF	2	
C27, 28	ECEA16V10	〃 10μF	2	
C29, 30	ECEA50V3R3	〃 3.3μF	2	
C31, 32	ECQM05122KZ	Mylar Capacitor 0.0012μF	2	
C33, 34	ECKD1H151KB	Ceramic Capacitor 150pF	2	
C35, 36	ECEA25V220	Electrolytic Capacitor 220μF	2	
C37, 38, 39, 40, 41, 42				
	ECEA16V10	〃 10μF	6	
C43, 44	ECQM05562JZ	Mylar Capacitor 0.0056μF	2	
C45, 46	ECQM05273JZ	〃 0.027μF	2	

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C47, 48	ECQM05472JZ	Mylar Capacitor	0.0047μF	2	
C49, 50	ECEA16V10	Electrolytic Capacitor	10μF	2	
C51, 52	ECQM05104KZ	Mylar Capacitor	0.1μF	2	
C53, 54	ECEA16V47	Electrolytic Capacitor	47μF	2	
C57, 58	ECQM05104KZ	Mylar Capacitor	0.1μF	2	
C59, 60	ECEA16V10	Electrolytic Capacitor	10μF	2	
C61, 62	ECQM05104KZ	Mylar Capacitor	0.1μF	2	
C63, 64	ECEA16V10	Electrolytic Capacitor	10μF	1	
C65, 66	ECQM05104KZ	Mylar Capacitor	0.1μF	2	
C67, 68	ECEA50ZR33	Electrolytic Capacitor	0.33μF	2	
C69	ECEA25V100	〃	100μF	1	
C71, 72	ECEB35V4R7	〃	4.7μF	2	
C73, 74	ECEA16V33	〃	33μF	2	
C76	ECEA6V330	〃	330μF	1	
C77, 78	ECEA16V10	〃	10μF	2	
C79, 80	ECEA50V3R3	〃	3.3μF	2	
C81, 82	ECEA50ZR33	〃	0.33μF	2	
C83, 84	ECEA16V47	〃	47μF	2	
C85, 86	ECQM05683KZ	Mylar Capacitor	0.068μF	2	
C87, 88	ECQM05393KZ	〃	0.039μF	2	
C89, 90	ECQM05183KZ	〃	0.018μF	2	
C91, 92	ECEB35V4R7	Electrolytic Capacitor	4.7μF	2	
C93, 94	ECQM05222KZ	Mylar Capacitor	0.0022μF	2	
C97, 98	ECQS1271KZ	Styrol Capacitor	270pF	2	
C99, 100	ECEA16V47	Electrolytic Capacitor	47μF	2	
C101, 102	ECKD1H102KB	Ceramic Capacitor	1000pF	2	
C201, 202	ECCD1H270K	〃	27pF	2	
C203	ECQM05223KZ	Mylar Capacitor	0.022μF	1	
C204	ECQM05104KZ	〃	0.1μF	1	
C205, 206	ECQM05472KZ	〃	0.0047μF	2	
C207	ECQM05333KZ	〃	0.033μF	1	
C208	ECEA25V100	Electrolytic Capacitor	100μF	1	
C209	ECKD1H102KB	Ceramic Capacitor	1000pF	1	
C210, 211	ECEA25V220	Electrolytic Capacitor	220μF	2	
C212	ECEA25V1000	〃	1000μF	1	

RS-630TUS-D

Ref. No.	Part No.	Part Name & Description		Pcs/ Set	Remarks
C213	ECEA16V1000	Electrolytic Capacitor	1000μF	1	
C214	ECKD1H102KB	Ceramic Capacitor	1000pF	1	
C216	ECEA25V100	Electrolytic Capacitor	100μF	1	
C217	ECEA50V3R3	〃	3.3μF	1	
		TRANSISTORS			
Tr1, 2, 3, 4	2SC1327	Transistor		4	RS-630USD
Tr5, 6	2SC644	〃		2	〃
Tr7, 8, 9, 10, 11, 12, 13, 14, 15, 16					
	2SC828	〃		10	〃
Tr17, 18	2SA564	〃		2	〃
Tr19, 20	2SC828	〃		2	〃
Tr21, 22	2SC1318	〃		2	〃
Tr23, 24, 25, 26, 27, 28, 29, 30					
	2SC828	〃		8	〃
Tr31, 32	2SK30AD	FET		2	〃
Tr201, 202, 203					
	2SC1347	Transistor		3	〃
		DIODES & RECTIFIERS			
D1, 2	OA90Z	Diode		2	RS-630USD
D3	EQA0108S	〃		1	〃
D5, 6, 7, 8	1S1211	〃		4	〃
D9, 10	OA90Z	〃		2	〃
D11, 12	1S1211	〃		2	〃
D14	OA90Z	〃		1	〃
D201, 202	SIB0102	Rectifier		2	〃
		TRANSFORMERS			
T1, 2	QLT2D10A	Output Transformer		2	RS-630USD
T201	QLB0158	Oscillator Transformer		1	〃
T202	QLPD7ELEA	Power Transformer		1	〃
		COILS			
L1, 2	QLM9Z002W	MPX Filter Coil		2	RS-630USD

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
L3, 4	QLQX0331W	Peaking Coil	2	RS-630USD
L5, 6	QLQX1032W	Bias Trap Coil	2	〃
		JACKS		
J1, 2, 5, 6	Refer to E12	LINE-IN/OUT Jack (Interlocked with Jack Board)	(4)	
J3, 4	QJA0237	Microphone Jack	2	RS-630USD
J7	QJA0238	Headphone Jack	1	〃
J8	Refer to E12	DIN Jack (Interlocked with Jack Board)	(1)	
		SWITCHES		
S1, 2	QSS1120	Slide Switch (Record/Playback Selector)	1	RS-630USD
S3, 4, 5, 6	QST2210H	Lever Switch (Dolby, Bias, Equalizer, Peak)	4	〃
S7	QSS2209T	Slide Switch (Muting)	1	〃
S8	QSB0169M1	Leaf Switch (Motor ON/OFF)	1	〃
S9	ESB7016	Push Switch (Power ON/OFF)	1	RS-610USD
S10	QSS1080	Slide Switch (Input)	1	RQ-546FLSD
		ELECTRICAL PARTS		
E1	WY445AZA	Record/Playback Head	1	RS-630USD
E2	QWY2118	Erase Head	1	〃
E3	QFC1204M	AC Power Cord	1	〃
E4	XAMR9S	Pilot Lamp	2	〃
E5	QTF1049A	Lamp Holder	2	〃
E6	XAMQ22P200N	Pilot Lamp	1	〃
E7	QBG1222	Lamp Cover	1	〃
E8	QSL9005LNM	Level Meter	2	〃
E9	QTD1164	Cord Clamper	1	〃
E10	QNQ1051	Jack Nut	3	〃
E11	QBH0050	Switch Mask	4	〃
E12	QEJ0354	Jack Board Assembly	1	〃
E13	QTFM1001	Fuse Holder	1	〃
E14	QJT6009	6P Terminal Board	1	〃
E15	XBAQ0006	Fuse (315mA)	1	〃
E16	XBAQ0008	Fuse (630mA)	1	〃
E17	XBAQ0004	Fuse (1A)	1	〃

RS-630TUS-D

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
		CABINET PARTS		
G1	QYBM0030A	Main Body Case Assembly	1	Ⓝ
G2	QGC1040	Case Cover	1	RS-630USD
G3	QGCM0004	Bottom Cover Assembly	1	〃
G3-1	QKA1065	Rubber Foot	4	〃
G3-2	XSN4+8S	Screw ⊕4×8	4	COMMON
G4	QYPM0019	Front Panel Assembly (Silver)	1	Ⓝ
(G4)	QYPM0020	Front Panel Assembly (Black)	1	Ⓝ
G5	QYCM0014	Cassette Cover Assembly	1	RS-630USD
G6	QKFM0022H	Slide Lid	1	〃
G7	QBPM0008	Lid Spring	1	〃
G8	QMAM0061	Side Angle	1	〃
G9	QMAM0065	Bottom Case Holding Angle	1	〃
G10	QXCM0005	Tape Counter	1	〃
G11	QXAM0003	Counter Angle Assembly	1	〃
G11-1	QBJ2088	Connection Pulley-A	2	〃
G11-2	QWQ1124	Snap Washer	2	〃
G12	QDB0124	Counter Belt-A	1	〃
G13	QDB0136	Counter Belt-B	1	〃
G14	QYT0378	Volume Knob-A Assembly	2	Ⓝ
G15	QYT0379	Volume Knob-B Assembly	2	Ⓝ
G16	QBJ3299	Washer	2	RS-630USD
G17	QXBM0017	Power Button	1	〃
G21	XSB4+8BVS	Screw (Black)	8	COMMON
G22	XWE4	Washer	8	〃
G24	XTN3+10B	Tapping Screw ⊕3×10	1	〃
G25	QHTM001RS	Screw (Red)	1	RS-630USD
G26	XTN3+8B	Tapping Screw ⊕3×8	2	COMMON
G27	QDP1679	Connection Pulley-B	1	RS-630USD
G28	QBJ3220	Washer	1	〃
G29	QMLM0031	Record/Playback Lever	1	〃
G30	XWG3E10	Flat Washer	1	COMMON
G31	XYN3+C6S	Screw ⊕3×6	3	〃
G32	XTN3+8B	Tapping Screw ⊕3×8	9	〃

Ref. No.	Part No.	Part Name & Description	Pcs/ Set	Remarks
G33	XWC3B	Lock Washer 3φ	8	COMMON
G34	XSN3+6S	Screw ⊕3×6	12	〃
		ACCESSORIES		
A1	RP050A	DIN Cord	2	COMMON
A2	QJP0603S	AC Plug Adaptor	1	RS-610USD
A3	QFT6TCJNTBFZ	Cassette Tape	1	RS-630USD
A4	QQT2094	Instruction Book	1	Ⓝ
		PACKINGS		
P1	QPNM0104A	Inside Carton	1	Ⓝ
P2	QPA0185	Inner Cushion-A	2	RS-630USD
P3	QPA0186	Inner Cushion-B	1	〃
P4	XZB50X60A05	Plastic Cover	1	〃